

SCIENCE

And Technology Program



Theme Area: Environmental Resources

Program Area: Pacific Northwest Region

Project No.: ER00.14

Project Title: Treatment Studies on Dissolved Gas

Principal Investigator: Andrew P. Murphy, e-mail: amurphy@do.usbr.gov

Co-Principal Investigator: Mark A. Lichtwardt

Abstract: This research is an attempt to demonstrate and further develop a practical treatment technology for gas supersaturated water by using the novel approach of microbubble generation. We believe this is a nucleation phenomenon and will conduct further research to better understand and optimize the process. This treatment technology will be demonstrated first in the Denver laboratory and later in an actual field situation at Alamosa, Colorado. With successful results in the Denver laboratory and at Alamosa, plans for implementing this technology in the Columbia river system at certain key locations known to generate supersaturated water near Grand Coulee Dam will be considered. In addition, electronic controls will be considered in the design to dampen spikes in the river system and allow optimum operation of the system during periods of high gas supersaturation.

Related link:
www.usbr.gov/water/water.html